

## Abstract

In one exemplary embodiment, an automated medication preparation system including automated syringe preparation that involves reconstitution of the medication is provided. The system includes: (1) a first automated gripping means for removing a tip cap from a barrel of one syringe and placing the removed tip cap at a first location; (2) an automated device for delivering a prescribed dosage amount of medication to the syringe by delivering the medication through the uncapped barrel in a just-in-time for use manner; (3) a controller in communication with the automated device and including a database for storing reconstitution information that is executable with the automated device for reconstituting the medication prior to it being injected into the syringe, wherein the reconstitution information include at least a concentration of the resultant medication and a mixing time for agitating the medication; and (4) a second automated gripping means for replacing the removed tip cap on the syringe barrel after the medication is injected therein.